CGNS Telecon Minutes

Tuesday, 29 November 2016, 11:00am Eastern Time

1. The meeting was called to order by Bob Bush. Attendees are listed in Appendix A.

2. September 23, 2016 minutes were approved as published on the website.

3. Steering committee issues:
   a. Committee members (telecon last date attended):
      a. Airbus   11/2016
      b. ANSYS   12/2015
      c. Boeing   11/2016
      d. Cenaero   11/2016
      e. Colo State   9/2016
      f. HDF   11/2016
      g. IL   9/2016
      h. NASA LRC 11/2016
      i. ONERA   11/2016
      j. Pointwise   11/2016
      k. P&W   11/2016
      l. SAFRAN   9/2016
      m. Tecplot   11/2016
      n. TTC   11/2016
      o. U Colo   4/2016
      p. U Kansas   11/2016

4. Discussion
   a. Software status
      i. Discussion about when to do next official release (3.3.1). There are only minor bug fixes (approx 6) since last release. Last time, decided to elevate issue of Fortran make failing on Windows to "blocker" status, until we can figure out what it will take to get that taken care of. Tony Garratt of Ansys has joined Atlassian, and has expressed an interest in helping to get this fixed (he is currently working it). <u>Rumsey to continue to communicate with Garratt (Ansys) about his work to fix compilation of Fortran on Windows</u>. After more discussion, it was felt prudent to also figure out the status of the "too many communicators" problem prior to making the new release (<u>Breitenfeld to follow up on "too many communicators" issue</u>).
   b. Parallel NGON read/write extension
      i. Legay has refined his proposal, which makes read/write of arbitrary polygons workable for parallel IO. The proposal is consistent with earlier ideas submitted by Andrew Parker of FluidGravity in the UK. After discussion, the committee decided to go with Legay's "light" proposal (no longer store number of elements in the element connectivity array), as well as to store "begin" nodes only in the new address array. <u>Legay to revise NGON proposal to final form, which will be made into a new CPEX for final consideration, voting, and implementation</u>. Once the new method is accepted and implemented, the old method would become deprecated; however, the software would still be able to read old format if necessary (i.e., backward compatibility should be assured).

    c.   Storage of high order grids and solutions
          i. Hillewaert went over his latest ideas, which are nearing completion. He has been working to get buy-in from many different groups. There are still a few issues to work out, including how to best handle backward compatibility with ZJ's existing grid storage method for up to 4th order elements. The plan is to make sure that all who contributed to the new plan endorse it, and to reach out to committee members (possibly Poinot) to ensure that the final proposal is in the right format. <u>Hillewaert will work to wrap up a proposal for storage of high-order grids and data.</u> He mentioned that he would likely be able to help implement the new method.
    d.   Potential NSF Proposal status
          i. Rumsey received no responses from the committee after sending out the previous (non-funded) NSF proposal+feedback.
         ii. The committee feels that we are now in a better position to develop a good proposal. <u>Breitenfeld to take the lead for revising and submitting a new NSF proposal by February 2017.</u> He will put it in the CGNS repository, so other committee members can help contribute to it.

5. Review action items
    a.   Review outstanding JIRA items.
          i. There are currently 42 items on the "to do" docket and 11 "in progress".
    b.   Rumsey to communicate with interested parties from CGNSTalk about problem compiling with Fortran for Windows.
          i. Done. Tony Garratt of Ansys is trying to work the problem.
    c.   Hillewaert will work to develop and vet ideas for storage of high-order data in conjunction with others, and will bring back a proposal to the committee.
          i. Done. Currently working to wrap up the proposal.
    d.   Rumsey to forward the old NSF proposal to the team, and ask for suggestions.
          i. Done.
    e.   Need a new proposal to fix the current inability to write NGONs (NFACEs) in parallel.
          i. In progress (Legay).

6. New business
    a.   None.

7. Ongoing Action Items
    a.   <u>Continue to review outstanding JIRA items/tasks.</u>
    b.   <u>Breitenfeld to follow up on "too many communicators" issue.</u>
    c.   <u>Rumsey to continue to communicate with Garratt (Ansys) about his work to fix compilation of Fortran on Windows.</u>
    d.   <u>Legay to revise NGON proposal to final form, which will be made into a new CPEX for final consideration, voting, and implementation.</u>
    e.   <u>Hillewaert will work to wrap up a proposal for storage of high-order grids and data.</u>
    f.   <u>Breitenfeld to take the lead for revising and submitting a new NSF proposal by February 2017.</u>

8. The next meeting is tentatively scheduled for Tuesday, 31 January 2017 at 10am Eastern.

9. Adjourn

Appendix A – Attendees

Kan Alabi	TTC
Pat Baker	Pointwise
Scot Breitenfeld	HDF Group
Bob Bush	Pratt & Whitney
Simone Crippa	Airbus
Koen Hillewaert	Cenaero
Scott Imlay	Tecplot
Dimitri Kamenetskiy	Boeing
Pierre-Jacques Legay	ONERA
Chris Rumsey	NASA LaRC
ZJ Wang	U Kansas